CLAIMS

1. Apparatus including a router having at least one input interface and at least one output interface, said router being coupled to a plurality of content address-able memory banks, each said memory bank being independently responsive to an input value, said input value being responsive to a message capable of being received on one of said input interfaces, each said memory bank including a routing treatment said router is capable of applying to said message.

2. Apparatus as in claim 1, wherein

said apparatus includes a plurality of monolithic integrated devices;

each said integrated device including a plurality of content addressable memory banks;

each said memory bank within each said integrated device being independently responsive to said input value.

3. Apparatus as in claim 2, wherein each said memory bank within each said integrated device is associated with a selected prefix length of said input value.

4. Apparatus as in claim 2, wherein each prefix length of said input value is associated with at least one said memory bank within at least one of said integrated devices.

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5.   Apparatus as in claim 2, wherein at least one said prefix length is associated with a plurality of said memory banks within at least one of said integrated devices.

6.   Apparatus as in claim 5, wherein, for said at least one prefix length associated with a plurality of said memory banks within at least one of said integrated devices, a set of entries associated with said at least one prefix length are each associated with an independent one of said memory banks, whereby an input value can be rapidly assigned to one of said memory banks for processing.

7.   Apparatus as in claim 5, wherein said set of entries includes a continuous range of an address space associated with said input value.

8.   Apparatus as in claim 5, wherein said input value includes a set of routing information for at least one message.

9.   Apparatus as in claim 5, wherein an output of said apparatus includes an indicator of a routing treatment for at least one message.

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